

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Leonard Hope on 4/24/09.

2. The application has been amended as follows:

Claim 1 has been replaced with the following: --

1. (Currently Amended) A computer-implemented method for testing a computer sound card having a wave table synthesizer and a memory storing a sample of a pre-produced digital tone at a known frequency, the method comprising executing a diagnostic application program on a computer containing the computer sound card, the diagnostic application program, when executed by the computer, configured to:

[utilizing a] utilize the wave table synthesizer of the computer sound card to play [a] the pre-produced digital tone from [a] the sample stored in [a] the memory of the computer sound card;

[converting] convert the pre-produced digital tone to an analog format tone;

[passing] pass the analog format tone to a mixer of the computer sound card;

after the analog format tone is received at the mixer, [looping] loop the analog format tone through an internal loopback mechanism of the computer sound card to a recording audio channel of the computer sound card;

[converting] convert the analog format tone to a second digital format tone;
[recording] record the second digital format tone;
convert the recorded second digital format tone from a time domain to a
frequency domain;

[comparing] compare the second digital format tone to the pre-produced digital
tone; [and]

if the second digital format tone is substantially similar to the pre-produced digital
tone, [designating] designate the audio sound card as passing an audio test;

calculating a DC offset value for the second digital format tone;
comparing the calculated DC offset value to a known acceptable DC offset
value to determine whether an unacceptable level of DC offset is produced when
the pre-produced digital tone is converted to the analog format tone and is
looped through the internal loopback mechanism to the recording audio channel;
and
if the calculated DC offset value is unacceptable, designate the recording
audio channel as failing the audio test.

Claim 8 has been canceled.

Regarding claim 9, line 1, the number "8" has been replaced with --1--.

Regarding claim 10, line 1, the number "8" has been replaced with --1--.

Regarding claim 12, line 1, the number "8" has been replaced with --1--.

Claim 14 has been cancelled.

Claims 19 and 20 have been cancelled.

Claim 21 has been replaced with the following: --

21. (Currently Amended) A system for testing a computer sound card in a computer, the system comprising:

- a computer sound card comprising a mixer, a recording channel, a wave table synthesizer, and a memory storing a sample of a pre-produced digital tone at a known frequency;

- a processor; and

- a system memory operatively coupled to the processor and containing computer-readable instructions that, when executed by the processor, cause the processor to
 - utilize the wave table synthesizer to play the pre-produced digital tone from the sample,

- convert the pre-produced digital tone to an analog format tone,

- pass the analog format tone to the mixer,

- loop the analog format tone through an internal loopback mechanism of the mixer to the recording channel,

- convert the analog format tone to a second digital format tone,

- convert the second digital format tone from a time domain to a frequency domain via a fast Fourier transformation,

- determine whether a frequency of the second digital format tone is substantially the same as the known frequency of the pre-produced digital tone,

upon determining that the frequency of the second digital format tone is substantially the same as the known frequency, calculate a DC offset value for the second digital format tone;

determine whether the calculated DC offset value is acceptable based on a threshold DC offset value;

upon determining that the calculated DC offset value is not acceptable, designate the computer sound card as failing the audio test; and

upon determining that the calculated DC offset value is acceptable,
designate the computer sound card as passing an audio test. –

Claim 22 has been canceled.

Claim 23 has been added as the following:--

23. (New) A computer-readable storage medium, containing computer-executable instructions that, when executed by a computer, cause the computer to:

- utilize a wave table synthesizer of a computer sound card comprising to play a pre-produced digital tone at a known frequency from a sample stored in a memory of the computer sound card;
- convert the pre-produced digital tone to an analog format tone;
- pass the analog format tone to a mixer of the computer sound card;
- loop the analog format tone through an internal loopback mechanism to a recording channel of the computer sound card;

convert the analog format tone to a second digital format tone;

convert the second digital format tone from a time domain to a frequency domain via a fast Fourier transformation;

determine whether a frequency of the second digital format tone is substantially the same as the known frequency of the pre-produced digital tone;

upon determining that the frequency of the second digital format tone is substantially the same as the known frequency, calculate a DC offset value for the second digital format tone;

determine whether the calculated DC offset value is acceptable based on a threshold DC offset value;

upon determining that the calculated DC offset value is not acceptable, designate the computer sound card as failing the audio test; and

upon determining that the calculated DC offset value is acceptable, designate the computer sound card as passing an audio test.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Wednesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ping Lee/
Primary Examiner, Art Unit 2614

pwl